

## apa

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **35**
- SRM **12.9**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **17.8 liter(s)**
- Total mash volume **24.4 liter(s)**

### Steps

- Temp **70 C**, Time **75 min**

### Mash step by step

- Heat up **17.8 liter(s)** of strike water to **79.3C**
- Add grains
- Keep mash **75 min** at **70C**
- Sparge using **20.5 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (75.8%)	80 %	4
Grain	Strzegom Monachijski typ I	0.3 kg (4.5%)	78 %	16
Grain	Strzegom Karmel 150	1 kg (15.2%)	75 %	150
Grain	Strzegom Karmelowy Pszeniczny	0.3 kg (4.5%)	70 %	100

### Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Magnat PL	30 g	60 min	12.5 %
Dry Hop	Chinook PL	68 g	3 day(s)	10 %
Dry Hop	Target	9 g	3 day(s)	10.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Slant	100 ml	---